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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,775	08/22/2003	Masafumi Sakaguchi	116906	8777

25944 7590 08/27/2004

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER	
SEVER, ANDREW T	

ART UNIT	PAPER NUMBER
2851	

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/645,775	SAKAGUCHI ET AL.	
	Examiner	Art Unit	
	Andrew T Sever	2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *8/11/2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 August 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings were received on 8/11/2004. These drawings are acceptable.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by McKechnie et al. (US 4,730,897.)

McKechnie et al. teaches in figure 7 a transmissive screen, comprising a Fresnel lens portion having Fresnel lens components on the light-exiting face, thereof;

A microlens array portion (lenticulars) disposed at the light-exiting face side of the Fresnel lens portion and having many micro lenses on a light-incident face; and

A light-diffusing portion disposed between the Fresnel lens portion and the microlens array portion (surface diffusion on front element).

With regards to applicant's claim 2:

Since the diffusing surface is at the surface, inherently the light-diffusing portion is substantially at a surface thereof.

With regards to applicant's claim 6:

See column 4 lines 9-27 which teaches that the surface diffuser is made by roughing a resin (polymer) with a powder.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKechnie et al. as applied to claims 1, 2, and 6 above, and further in view of Goto et al. (US 2003/0137729.)

As described in more detail above McKechnie teaches a transmissive screen comprising a Fresnel lens, a microlens array, and a light-diffusing portion disposed between the Fresnel lens and the microlens array. McKechnie does not specifically teach that the light-diffusing portion has a haze value ranging from 5% to 99% or that it has a gloss value ranging from 5% to 65%. Goto teaches in a screen that does not have the diffusive sheet that it is desirous to have the Fresnel sheet have a haze value of 15 to 40 % and a

gloss of 20 to 45% in order to maintain contrast and reduce ghosting (see paragraphs 20-24.) Although Goto does not teach the light diffusing portion, it would be equally obvious to maintain these values on the light-diffusing portion as otherwise the light-diffusing portion would introduce the ghosting and/or cause diffraction. Therefore it would have been obvious to one of ordinary skill in the art to make the light-diffusing portion of McKechnie have a haze value of 15 to 40% and gloss value of 20 to 45%.

With regards to applicant's claim 5:

Although McKechnie does not teach it, one with ordinary skill in the art would recognize that the powder that McKechnie uses to make the diffraction pattern would make substantially conical irregularities.

6. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKechnie et al. as applied to claims 1, 2, and 6 above, and further in view of Goto (US 6,046,855.)

As described in more detail above McKechnie teaches a transmissive screen comprising a Fresnel lens, a microlens array, and a light-diffusing portion disposed between the Fresnel lens and the microlens array. McKechnie does not necessary teach the diameter of the microlens or how they are arranged. Goto teaches in column 11 lines 55-67 microlenses (which are lenticular lens a type of microlens) having a diameter of 24 to 50 micrometer. Goto further teaches in table 1 (columns 2 and 3 and in column 3 lines 10-15 that an angle of 45 degrees or more is preferable (as is claimed by applicant's

claim 8) Goto teaches in column 3 lines 45-54 that the angle as well as the diameter of the lenses improves contrast as well as reduces reflection of extraneous light. Accordingly it would be obvious to one of ordinary art at the time the invention was made to incorporate the micro lenses of Goto in the transmissive screen of McKechnie.

With regards to applicant's claim 9:

Goto teaches in column 1 lines 5-23 the basic parts of a rear projector which includes an optical projection unit and the transmissive screen such as the one taught by McKechnie (and Goto).

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claim1 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim4 of copending Application No. 10/647,302. Although the conflicting claims are not identical, they are not patentably distinct from each other

because they claim all the same components: a Fresnel lens, a microlens array disposed at the light-exiting face side of the Fresnel lens portion and a light diffusing portion disposed between the Fresnel lens portion and the microlens array portion.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

9. Applicant's arguments filed 8/11/2004 have been fully considered but they are not persuasive.

Applicant has mostly argued against the 35 USC 102 rejection based on US patent 4,730,897 to McKechnie et al, al; all other non-double patenting rejections being based in part on this rejection. Applicant did not address the double patenting rejection.

Applicant argues that the '897 patent does not teach the microlens array, rather it teaches only a lenticular array. Those with ordinary skill in the art at the time the invention was made would recognize that a lenticular array is a subset of microlens array and accordingly the '897 patent does teach the microlens array. See the definition of both Lenticular and lenticule as defined in Merriam Webster's dictionary, which states that lenticular arrays are made of lenticules, which are tiny (micro) double convex lens. The prior art also teaches that lenticular arrays are a subtype of microlens see for example US 6,436,265 to Shimada et al. which teaches in column 3

lines 53-59 several different subtypes of microlens arrays. Accordingly the rejection has been repeated (with a minor editing revision to emphasizes that the microlens array is referring to the lenticular array of the '897 patent and in the case of the 6,046,855 to emphasis the well known fact that lenticular arrays are a type of microlens array) and the rejection is made final.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Sever whose telephone number is 571-272-2128. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AS

JUDY NGUYEN
PRIMARY EXAMINER